I CLAIM:

1. An actuation system for hydraulic systems in a common hydraulic circuit comprising in combination:

a) a first hydraulic driven component having a bidirectional driven element with at least two mechanical end points limiting, arresting and stopping further mechanical movement of the bidirectional element for inherently providing an increase in hydraulic pressure in the hydraulic circuit upon being hydraulically driven against a mechanical end point;

b) a second hydraulically driven component having a bidirectional driven element with at least two mechanical end points limiting, arresting and stopping further mechanical movement of its bidirectional driven element for inherently providing an increase in hydraulic pressure in the hydraulic circuit upon being hydraulically driven against a mechanical end point;

c) a source of reversible hydraulic power including a motor driving a pump pumping a hydraulic liquid from a containing reservoir for supplying hydraulic liquid at least at a pre-set pressure (P_a) in a forward and a reverse direction;

d) a first hydraulic power supply/return line connected between the source of hydraulic power and the first hydraulic driven component between one of the two mechanical end points and its bidirectional driven element;

e) a first vent sequence valve in a second hydraulic power supply/return line connected between the source of hydraulic power and the second hydraulic driven component between one of its two mechanical end points and its bidirectional driven element;

f) a third hydraulic power supply/return line connected between the source of hydraulic power and the second hydraulic driven component between other of the two mechanical end points and its bidirectional driven element, completing the common hydraulic circuit including the first and second hydraulic driven components and the source of hydraulic power;

g) a pressure switch monitoring pressure of the hydraulic liquid pumped from the source of hydraulic power for turning off the source of hydraulic power at a pre-set pressure level (P_{off});

forward hydraulic power being supplied to the first hydraulic driven component for driving it's bidirectional element to one of its mechanical end points via the first hydraulic power supply/return line generating a first pressure increase (P_b) in the first and second supply/return lines switching the first vent sequence valve to supply hydraulic power to the second hydraulically driven component for driving its bidirectional element to one of its mechanical end points generating a second pressure level P_c in the second supply/return line, where $P_a < P_b < P_{off} \leq P_c$ shutting off the system.

2. The actuation system for hydraulic systems of claim 1 and further including:

h) a fourth hydraulic power supply/return line connected between the source of hydraulic power and the first hydraulic driven component between other of its two mechanical end points and its bidirectional driven element, completing the common hydraulic circuit including the first and second hydraulic driven components and the source of hydraulic power;

i) a second vent sequence valve in the fourth hydraulic power supply/return line connected between the source of hydraulic power and the first hydraulic driven component between the other of its of the two mechanical end points and its bidirectional driven element;

reverse hydraulic power being supplied to the second hydraulic driven component for driving it's bidirectional element to the other of its mechanical end points via the third hydraulic power supply/return line generating a first pressure increase (P_b) in the third and fourth supply/return lines switching the second vent sequence valve to supply hydraulic power to the first hydraulically driven component for driving its bidirectional element to the other of its mechanical end points generating a second pressure level P_c in the second supply/return line, where $P_a < P_b < P_{off} \leq P_c$ shutting off the system.

3. The actuation system for hydraulic systems of claim 2 and further including:

j) a manual shut off valve in the fourth hydraulic power supply/return line for interrupting supply flow to, but allowing return flow hydraulic liquid from the first hydraulic driven component connected between the second sequence valve and the first hydraulic driven component to manually hold its bidirectional element at any position between the particular one of its two mechanical end points and the other of its two mechanical end points.

4. The actuation system for hydraulic systems of claim 2 and further including:

k) a first counterbalance valve having a free flow bypass line allowing supply flow with a check valve stopping return flow of hydraulic liquid in that bypass line switching to allow return flow of hydraulic pressure in the first hydraulic supply/return line at a pressure level (P_d) that is greater than the pressure level in the third supply/return line when reverse hydraulic power is supplied via the fourth supply/return line to the first driven hydraulic component for driving its bidirectional element from the particular one of its two

mechanical end points to the other of its two mechanical end points, whereby, the bidirectional element of the first hydraulically driven component is held against the particular one of its mechanical end points until the second vent sequence valve switches to supply hydraulic power to the first hydraulically driven component for driving its bidirectional element to the other of its mechanical end points.

5. The actuation system for hydraulic systems of claim 1 and further including:

l) a timer controlled valve draining forward circulating supply hydraulic liquid at a set rate from the first supply/return line to the reservoir of the reversible hydraulic power source for a set time connected between the source of forward hydraulic power and the first driven hydraulic component for initially slowing translation of its bidirectional element toward the particular one of its two mechanical end points.

6. The actuation system for hydraulic systems of claim 2 and further including:

m) a timer controlled valve draining reverse circulating supply hydraulic liquid at a set rate from the third supply/return line to the reservoir of the reversible hydraulic power source for a set time connected between the source of reverse hydraulic power and the second driven hydraulic component for initially slowing translation of its bidirectional element toward the particular other of its two mechanical end points.

7. The actuation system for hydraulic systems of claim 2 wherein the first and second sequence valves each include a vent port line connecting to the reservoir of the reversible source of hydraulic power for allowing movement of a valve element in each sequence from a position interrupting supply hydraulic liquid flow in the particular supply/return line its is incorporated into, to a position allowing supply hydraulic liquid flow in the particular supply/return line, and further including in combination therewith:

n) a diverter valve connecting to:

(i) the respective vent port lines of the sequence valves,

(ii) to the second hydraulic supply/return line between the source of reversible hydraulic power and the first sequence valve, and

(iii) to the third hydraulic supply/return between the source of reversible hydraulic power the second hydraulic driven component,

the diverter valve having means for simultaneously isolating high pressure supply flow of hydraulic liquid respectively in the forward direction and in the reverse direction from the second and third hydraulic supply/return lines, and directing (A) hydraulic liquid flow from the respective vent port lines of the respective sequence valves to the third hydraulic supply/return functioning as a return line when source of reversible hydraulic power supplies hydraulic liquid at least at a pre-set pressure (P_a) in the forward direction, and (B) to the second hydraulic supply/return functioning as a return line when source of reversible hydraulic power supplies hydraulic liquid at least at a pre-set pressure (P_a) in the reverse direction.

8. An actuation system for pneumatic systems in a common pneumatic circuit comprising in combination:

a) a first pneumatic driven component having a bidirectional driven element with at least two mechanical end points limiting, arresting and stopping further mechanical movement for inherently providing an increase in pneumatic pressure in the pneumatic circuit upon being pneumatically against a mechanical end point;

b) a second pneumatically driven component having a bidirectional driven element with at least two mechanical end points limiting, arresting and stopping further mechanical movement of its bidirectional driven element for inherently providing an increase in pneumatic pressure in the pneumatic circuit upon being pneumatically driven against a mechanical end point;

c) a source of reversible pneumatic power including a motor driving a pneumatic pump pumping a pneumatic fluid from a containing reservoir for supplying a pneumatic fluid at least at a pre-set pressure (P_a);

d) a first pneumatic power supply/return line connected between the source of pneumatic power and the first pneumatic driven component between one of the two mechanical end points and its bidirectional driven element;

e) a first vent sequence valve in a second pneumatic power supply/return line connected between the source of pneumatic power and the second pneumatic driven component between one of the two mechanical end points and its bidirectional driven element;

f) a third pneumatic power supply/return line connected between the source of pneumatic power and the second pneumatic driven component between the other of the two mechanical end points and its bidirectional driven element, completing a common

pneumatic circuit including the first and second pneumatic driven components and the source of pneumatic power;

g) a pressure switch monitoring pressure from the source of pneumatic power for turning off the source of pneumatic power at a pre-set pressure level (P_{off});

pneumatic power being supplied to the first pneumatic driven component for driving it's bidirectional element to one of its mechanical end points via the first pneumatic power supply/return line generating a first pressure increase (P_b) in the first and second supply/return lines switching the first vent sequence valve to supply pneumatic power to the second pneumatically driven component for driving its bidirectional element to one of its mechanical end points generating a second pressure level P_c in the second supply/return line, where $P_a < P_b < P_{off} \leq P_c$ shutting off the system.

9. A method for actuating a system of fluidic components, each component having a bidirectional driven element with at least two mechanical end points limiting, arresting and stopping further mechanical movement of the bidirectional element for inherently providing an increase in fluidic pressure in a common fluidic circuit upon being driven against a mechanical end point, comprising the following steps:

a) providing a source of reversible fluidic power including a motor driving a fluidic pump pumping a fluid from a containing reservoir for supplying a fluid at a pre-set pressure (P_a);

b) supplying a first supply/return line connected between the source of hydraulic power and a first particular fluidic driven component between one of the two mechanical end points and its bidirectional driven element for inherently increasing fluidic pressure to pressure (P_b) in the first supply line and in a second fluidic power supply/return line connected between the source of fluidic power and a particular second fluidic driven component between one of the two mechanical end points and its bidirectional driven element to where $P_b > P_a$;

c) providing a third fluidic power supply/return line connected between the source of fluidic power and the second hydraulic driven component between the other of the two mechanical end points and its bidirectional driven element completing a common fluidic circuit of the first and second particular fluidic driven components and the source of fluidic power;

d) providing a pressure switch monitoring pressure of the fluid from the source of fluidic power for turning off the source of fluidic power at a pre-set pressure level (P_{off});

e) providing first vent sequence valve in the second fluidic power supply/return line connected between the source of fluidic power and the particular second fluidic driven component for switching the first vent sequence valve to supply fluidic power to the second fluidic driven component for driving its bidirectional element to one of its mechanical end

points generating a second pressure level (P_c) in the second supply/return line, where $P_a < P_b < P_{off} \leq P_c$ shutting off the system.